



*Commonwealth of Virginia*

***VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY***

**VALLEY REGIONAL OFFICE**

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Director  
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Amy Thatcher Owens  
Regional Director

February 27, 2019

Mr. Phillip Rhodes  
Director of Public Works  
Rockingham County Department of Public Works  
20 East Gay Street  
Harrisonburg, Virginia 22801  
[prhodes@rockinghamcountyva.gov](mailto:prhodes@rockinghamcountyva.gov)

Facility: Rockingham County Landfill  
Location: City of Harrisonburg  
Registration No.: 81569

Dear Mr. Rhodes:

Attached is a renewal Title V permit to operate your facility pursuant to 9VAC5 Chapter 80 Article 1 of the Virginia Regulations for the Control and Abatement of Air Pollution. The attached permit will be in effect beginning March 1, 2019.

In the course of evaluating the application and arriving at a final decision to issue this permit, the Department of Environmental Quality (DEQ) deemed the application complete on December 28, 2016 and solicited written public comments by placing a newspaper advertisement in the Daily News-Record on December 10, 2018. The thirty-day required comment period, provided for in 9VAC5-80-270 expired on January 9, 2019.

This permit contains legally enforceable conditions. Failure to comply may result in a Notice of Violation and/or civil charges. Please read all permit conditions carefully.

This permit approval to operate shall not relieve Rockingham County Department of Public Works of the responsibility to comply with all other local, state, and federal permit regulations.

The Board's Regulations as contained in Title 9 of the Virginia Administrative Code 5-170-200 provide that you may request a formal hearing from this case decision by filing a petition with the Board within 30 days after this case decision notice was mailed or delivered to you. Please consult the relevant regulations for additional requirements for such requests.

As provided by Rule 2A:2 of the Supreme Court of Virginia, you have 30 days from the date you actually received this permit or the date on which it was mailed to you, whichever occurred first, within which to initiate an appeal of this decision by filing a Notice of Appeal with:

David K. Paylor, Director  
Department of Environmental Quality  
P. O. Box 1105  
Richmond, VA 23218

If this permit was delivered to you by mail, three days are added to the thirty-day period in which to file an appeal. Please refer to Part Two A of the Rules of the Supreme Court of Virginia for information on the required content of the Notice of Appeal and for additional requirements governing appeals from decisions of administrative agencies.

If you have any questions concerning this permit, please contact me at (540) 574-7817 or Janardan.Pandey@deq.virginia.gov.

Sincerely,

A handwritten signature in dark ink, reading "Janardan R. Pandey", with a horizontal line underneath.

Janardan R. Pandey, P.E.  
Air Permit Manager

Attachment: Permit

cc: File DEQ-VRO  
Director, OAPP (via email)  
Chief, Air Enforcement Branch (3AP20), U.S. EPA, Region III (via email)



***COMMONWEALTH of VIRGINIA***  
***DEPARTMENT OF ENVIRONMENTAL QUALITY***

**Federal Operating Permit**  
**Article 1**

This permit is based upon the requirements of Title V of the Federal Clean Air Act and Chapter 80, Article 1 of the Commonwealth of Virginia Regulations for the Control and Abatement of Air Pollution. Until such time as this permit is reopened and revised, modified, revoked, terminated or expires, the permittee is authorized to operate in accordance with the terms and conditions contained herein. This permit is issued under the authority of Title 10.1, Chapter 13, §10.1-1322 of the Air Pollution Control Law of Virginia. This permit is issued consistent with the Administrative Process Act, and 9VAC5-80-50 through 9VAC5-80-300 of the State Air Pollution Control Board Regulations for the Control and Abatement of Air Pollution of the Commonwealth of Virginia.

Authorization to operate a Stationary Source of Air Pollution as described in this permit is hereby granted to:

|                      |  |
|----------------------|--|
| Permittee Name:      | Rockingham County Department of Public Works |
| Facility Name:       | Rockingham County Landfill                   |
|                      | Harrisonburg, Virginia                       |
| Registration Number: | 81569  |
| Permit Number:       | VRO81569                                     |

This permit includes the following programs:  
Federally Enforceable Requirements - Clean Air Act

March 1, 2019

Effective Date

February 28, 2024

Expiration Date

A handwritten signature in blue ink, appearing to read "B. R. Hill", written over a horizontal line.

Deputy Regional Director, Valley Region

February 26, 2019

Signature Date

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## **Facility Information**

### **Permittee**

Rockingham County Department of Public Works  
20 East Gay Street  
Harrisonburg, Virginia 22801

### **Responsible Official**

Mr. Phillip Rhodes  
Director of Public Works

### **Facility**

Rockingham County Landfill  
813 Greendale Road  
Harrisonburg, Virginia 22801

### **Contact Person**

Mr. Jeff Smith  
Landfill Manager, Rockingham County  
(540) 830-4540  
jlsmith@rockinghamcountyva.gov

**Plant Identification Number: 51-165-0222**

### **Facility Description: NAICS Code 562212 – Refuse Systems**

The Rockingham County Landfill (RCL) is a municipal solid waste management (MSW) facility located at 813 Greendale Road in Rockingham County, east of Interstate 81. Rockingham County Department of Public Works owns and operates the landfill. The landfill site is partially in Rockingham County (144 acres) and partially in the City of Harrisonburg (83 acres) and receives waste from both areas.

The facility is a Title V minor source for all pollutants. The landfill is subject to New Source Performance Standards (NSPS) for Municipal Solid Waste Landfills at 40 CFR 60 Subpart WWW and at 40 CFR 60 Subpart XXX. 40 CFR 60.752 (b) states that landfills above the 2.5 million m<sup>3</sup> and 2.5 million megagrams design capacity are subject to Title V permitting requirements. According to 9VAC5-80-110 A.2, a permit for any source other than a major source subject to federal operating permitting shall include all requirements that apply to emissions units that cause the source to be subject to federal operating permit requirements. Therefore, the permit includes only requirements applicable to the landfill, the “affected facility” under 40 CFR 60 Subparts WWW and XXX, and to the utility flare (part of the landfill gas collection and control system required under Solid Waste regulations).

RCL is located in an attainment area for all pollutants and is a PSD minor source. It is permitted under a Minor NSR Permit dated December 19, 2016.

## Emission Units

Equipment to be operated consists of:

| <b>Emission Unit ID</b> | <b>Stack ID</b> | <b>Emission Unit Description</b> | <b>Size/Rated Capacity*</b> | <b>Pollution Control Device (PCD) Description *</b> | <b>PCD ID</b> | <b>Pollutant Controlled</b> | <b>Applicable Permit Date</b> |
|-------------------------|-----------------|----------------------------------|-----------------------------|---|---------------|-----------------------------|-------------------------------|
| LF-01                   | -               | MSW Landfill                     | 8.46 million Mg             | -   | -             | -                           | 12/19/2016 Permit             |
| F-01                    | -               | Utility Flare                    | 1,362 scfm                  | -   | -             | NMOC and VOC                | 12/19/2016 Permit             |

\*The Size/Rated capacity is provided for informational purposes only, and is not an applicable requirement.

## **Landfill Requirements – (Emission Unit LF-01)**

1. **Limitation (LF-01)** - The landfill shall not accept more than 8.46 million megagrams of municipal solid waste for disposal in the landfill. An increase in the amount of waste accepted may require a new or amended permit.  
(9VAC5-80-110 and Condition 1 of 12/19/2016 Permit)
2. **Limitation (LF-01)**– The permittee shall install and start up a landfill gas (LFG) collection and control system that captures the gas generated within the landfill as required by 40 CFR 60.762 (b)(2)(ii) (A) or (B) and 40 CFR 60.762 (b)(2)(iii) within 30 months after the first annual non-methane organic compounds (NMOC) emission rate report, required in Condition 10, in which the NMOC emission rate equals or exceeds 34 megagrams per year, unless Tier 2 or Tier 3 sampling demonstrates that the NMOC emission rate is less than 34 megagrams per year or Tier 4 monitoring, as described in Condition 13, demonstrates that surface methane emissions are below 500 parts per million.  
(9VAC5-80-110, Condition 2 of the 12/19/2016 Permit, 40 CFR 60.752 (b) and 40 CFR 60.762 (b))
3. **Limitation (LF-01)** - Unless otherwise specified, fugitive dust emission controls shall include the following or equivalent as a minimum:
  - a. Dust from grading, cell construction, waste compaction, application of daily cover, wood waste chipping operations, storage piles and traffic areas shall be controlled by wet suppression or equivalent (as approved by the DEQ) control measures.
  - b. All material being stockpiled shall be kept moist to control dust during storage and handling, or covered to minimize emissions.  
(9VAC5-80-110 and Condition 3 of 12/19/2016 Permit)
4. **Limitation (LF-01)** - In order to minimize the duration and frequency of excess emissions, the permittee shall implement the DEQ-approved Dust Control Plan which outlines the preventive measures to be implemented for dust control at the landfill. The plan shall include the following as a minimum:
  - a. Identification of the personnel responsible for overseeing dust control;
  - b. Description and the frequency of measures to be taken to prevent excess emissions from grading, cell construction, waste compaction and daily cover application; and
  - c. Description and the frequency of measures to be taken to prevent excess emissions from storage piles and stockpiling operations.

(9VAC5-80-110 and Condition 4 of 12/19/2016 Permit)

5. **Limitation (LF-01)** - Visible emissions from the landfill shall not exceed 20 percent opacity except during one six-minute period in any one hour in which visible emissions shall not exceed 30 percent opacity as determined by 40 CFR 60, Appendix A, Method 9.  
(9VAC5-80-110 and Condition 12 of 12/19/2016 Permit)
6. **Limitation (LF-01)** – Any LFG collection and control system used to comply with 40 CFR 60.762(b)(2) and Condition 2 shall be operated in accordance with 40 CFR 60.763.  
(9 VAC 5-80-110, 40 CFR 60.753 and 40 CFR 60.763)
7. **Monitoring (LF-01)** - The permittee shall use either of the following equations (Equation 1 or Equation 2) to calculate the annual NMOC emission rate from the landfill. The default values to be used in both equations are 0.05 per year for k, 170 cubic meters per megagram for  $L_O$ , and 4000 parts per million by volume as hexane for  $C_{NMOC}$ . If obtained, the site-specific value for  $C_{NMOC}$ , as determined by using the procedure specified in Condition 10, and/or the site-specific value for k, as determined by using the procedure specified in Condition 11, shall be used in lieu of the default value for  $C_{NMOC}$  and/or k in calculating the NMOC emission rate.
- a. Equation 1 shall be used if the actual year-to-year solid waste acceptance rate is known:

$$M_{NMOC} = \sum_{i=1}^n 2kL_O M_i (e^{-kt_i})(C_{NMOC})(3.6 \times 10^{-9}) \quad \text{Equation 1}$$

Where:

|                      |   |
|----------------------|---|
| $M_{NMOC}$           | = Total NMOC emission rate from the landfill, megagrams per year      |
| k                    | = methane generation rate constant, year <sup>-1</sup>                |
| $L_O$                | = methane generation potential, cubic meters per megagram solid waste |
| $M_i$                | = mass of solid waste in the ith section, megagrams                   |
| $t_i$                | = age of the ith section, years                                       |
| $C_{NMOC}$           | = concentration of NMOC, parts per million by volume as hexane        |
| $3.6 \times 10^{-9}$ | = conversion factor   |

The mass of nondegradable solid waste may be subtracted from the total mass of solid waste in a particular section of the landfill when calculating the value for  $M_i$  if documentation of the nature and amount of such wastes is maintained.

- b. Equation 2 shall be used if the actual year-to-year solid waste acceptance rate is unknown:

$$M_{NMOC} = 2L_O R(e^{-kc} - e^{-kt})(C_{NMOC})(3.6 \times 10^{-9}) \quad \text{Equation 2}$$

Where:

|            |   |
|------------|---|
| $M_{NMOC}$ | = mass emission rate of NMOC from the landfill, megagrams per year    |
| $L_O$      | = methane generation potential, cubic meters per megagram solid waste |



|                      |   |
|----------------------|---|
| R                    | = average annual acceptance rate, megagrams per year                                |
| k                    | = methane generation rate constant, year <sup>-1</sup>                              |
| t                    | = age of the landfill, years  |
| C <sub>NMOC</sub>    | = concentration of NMOC, parts per million by volume as hexane                      |
| c                    | = time since closure, years (for an active landfill c = 0 and e <sup>-kc</sup> = 1) |
| 3.6x10 <sup>-9</sup> | = conversion factor   |

The mass of nondegradable solid waste may be subtracted from the average annual acceptance rate when calculating a value for R, if documentation of the nature and amount of such wastes is maintained.

(9VAC5-80-110, 40 CFR 60.752(b)(1), 40 CFR 60.754(a)(1)(i) and (ii), 40 CFR 60.762(b)(1), 40 CFR 60.764(a)(1)(i) and (ii), and Condition 5 of 12/19/2016 Permit)

8. **Monitoring (LF-01)** - During each day of landfill operations, the permittee shall visually survey landfill activities for any sources of excessive fugitive emissions. For the purpose of this survey, excessive emissions are considered to be any visible emissions that leave the facility site boundaries. The presence of excessive fugitive emissions shall require further investigation as to the cause of the emissions and timely corrective action shall be taken. If water is used to control the fugitive dust emissions, the permittee shall take care not to create a water quality problem from surface water runoff. All observations and corrective actions taken shall be logged and recorded.

(9VAC5-80-110 and Condition 16 of 12/19/2016 Permit)

9. **Recordkeeping (LF-01)** - The permittee shall maintain records of all emissions data and operating parameters necessary to demonstrate compliance with this permit. The content of and format of such records shall be arranged with the DEQ. These records shall include, but are not limited to:

- Readily accessible, on-site records of the landfill capacity.
- Annual calculated mass emission rate of NMOC from the landfill.
- The current amount of solid waste in-place.
- The year-by-year or average waste acceptance rate.
- Site-specific values for C<sub>NMOC</sub> and k, if obtained.
- Age of landfill.
- Description, location, amount, and placement date of all nondegradable refuse, including asbestos and demolition refuse, which are excluded from landfill gas estimation.
- Installation date and location of all vents and/or gas collection components.
- A copy of the DEQ-approved Dust Control Plan, as required by Condition 4.

- j. Daily logs of the visual survey of landfill activities to include the following:
  - (1) The date, time, and name of the person performing each inspection;
  - (2) Whether or not excessive fugitive emissions are observed and the suspected cause of such emissions; and
  - (3) The date, time, and type of corrective actions taken.
- k. The results of all visible emission evaluations.
- l. For Tier 4 monitoring, to demonstrate site-specific surface methane emissions are below 500 ppm, the permittee shall keep records according to 40 CFR 60.768 (g) as applicable.
- m. If employing leachate recirculation or liquids addition as specified under Condition 20, the permittee shall keep records of any engineering calculations or company records used to estimate the quantities of leachate or liquids added, the surface areas for which the leachate or liquids were applied, and the estimates of annual waste acceptance or total waste in place in the areas where leachate or liquids were applied.
- n. Those records required by 40 CFR 60.768 for gas collection and control systems (if a gas collection and control system is required to be installed according to Condition 2).

These records shall be available for inspection by the DEQ and shall be current for the most recent five years. Off-site records may be maintained if they are retrievable within 4 hours. Either paper copy or electronic formats are acceptable.

(9VAC5-80-110, 40 CFR 60.758, 40 CFR 60.768 and Condition 18 of 12/19/2016 Permit)

10. **Testing (LF-01)** - When determining the Tier 2 site-specific NMOC concentration ( $C_{NMOC}$ ) for the landfill, the permittee shall use the following sampling procedure. The permittee shall install at least two sample probes per hectare of landfill surface that has retained waste for at least two years. If the landfill is larger than 25 hectares in area, only 50 samples are required. The sample probes should be located to avoid known areas of nondegradable solid waste. The permittee shall collect and analyze one sample of landfill gas from each probe to determine the NMOC concentration using 40 CFR 60, Appendix A, Method 18 or 40 CFR 60, Appendix A, Method 25C. For 40 CFR 60, Appendix A, Method 18, the minimum list of compounds to be tested shall be those published in the most recent Compilation of Air Pollutant Emission Factors (AP-42). If composite sampling is used, equal volumes shall be taken from each sample probe. If more than the required number of samples is taken, all samples shall be used in the analysis. For 40 CFR 60, Appendix A, Method 25C, the permittee shall divide the NMOC concentration by six to convert from  $C_{NMOC}$  as carbon to  $C_{NMOC}$  as hexane. If the landfill has an active or passive gas removal system in place, Method 25 or 25C samples may be collected from these systems instead of surface probes provided the removal system can be shown to provide sampling as representative as the two sampling probe per hectare requirement. For active collection systems, samples may be collected from the common header pipe before the gas moving or condensate removal equipment. For these systems, a minimum of three samples must be collected from the

header pipe. The permittee shall submit a test protocol at least 30 days prior to testing. One copy of the test results shall be submitted to the DEQ within 45 days after test completion. (9VAC5-80-110, 40 CFR 60.754(a)(3), 40 CFR 60.764(a)(3) and Condition 13 of 12/19/2016 Permit)

11. **Testing (LF-01)** – The Tier 3 site-specific methane generation rate constant (k) for the landfill shall be determined using the procedure provided in 40 CFR Part 60, Appendix A, Method 2E. The permittee shall submit a test protocol at least 30 days prior to testing. One copy of the test results shall be submitted to the DEQ within 45 days after test completion. (9VAC5-80-110, 40 CFR 60.754(a)(4), 40 CFR 60.764(a)(4) and Condition 14 of 12/19/2016 Permit)
12. **Testing (LF-01)** – The permittee may use other methods to determine the NMOC concentration or a site-specific methane generation rate constant as an alternative to the methods required in Conditions 10 and 11 if the method has been approved by the EPA. (9VAC5-80-110, 40 CFR 60.754(a)(5), 40 CFR 60.764(a)(5) and Condition 15 of 12/19/2016 Permit)
13. **Testing (LF-01)** – The permittee may conduct Tier 4 monitoring provided that the permittee can demonstrate that NMOC emissions are greater than or equal to 34 Mg/year but less than 50 Mg/year using Tier 1 or Tier 2. (9VAC5-80-110 and 40 CFR 60.764 (a)(6))
14. **Testing (LF-01)** – If testing is conducted in addition to the monitoring specified in the permit, the permittee shall use the appropriate method(s) in accordance with the procedures approved by the DEQ. (9VAC5-80-110)
15. **Reporting (LF-01)** – Not later than April 15 of each year, the permittee must submit an annual NMOC emission rate report to the DEQ. The NMOC emission rate shall be calculated in accordance with the methodology contained in Condition 7. The report shall include all data, calculations, sample reports and measurements used to estimate the emissions. If the estimated NMOC emission rate as reported in the annual report is less than 34 megagrams per year in each of the next five consecutive years, the permittee may elect to submit an estimate of the NMOC emission rate for the next five year period in lieu of the annual report. This estimate shall include the current amount of solid waste-in-place and the estimated waste acceptance rate for each year of the five years for which an NMOC emission rate is estimated. This estimate shall be revised at least once every five years. If the actual waste acceptance rate exceeds the estimated waste acceptance rate in any year reported in the five year estimate, a revised five year estimate shall be submitted. The revised estimate shall cover the five year period beginning with the year in which the actual waste acceptance rate exceeded the estimated waste acceptance rate. (9VAC5-80-110, 40 CFR 60.752(b)(1), 40 CFR 60.757 (b), 40 CFR 60.762(b)(1), 40 CFR 60.767 (b) and Condition 19 of 12/19/2016 Permit)

**16. Reporting (LF-01)** – If the reported NMOC emission rate, in the annual report, is equal to or exceeds 34 megagrams per year, the permittee shall:

- a. Submit a LFG collection and control system design plan as per 40 CFR 60.762(b)(2); or
- b. Within 180 days of the emission rate report in Condition 15, demonstrate, using a site-specific NMOC concentration (Tier 2), that NMOC emissions do not equal or exceed 34 megagrams per year, submit a revised NMOC emission rate report, resume annual NMOC emission rate reporting, and retest the site-specific NMOC concentration every five years.

(9VAC5-80-110, 40 CFR 60.752 (b)(2), 40 CFR 60.757 (c), 40 CFR 60.762 (b)(2), 40 CFR 60.767 (c)(4)(i) and Condition 20 of 12/19/2016 Permit)

**17. Reporting (LF-01)** - If, using a site-specific NMOC concentration, the NMOC emission rate is equal to or exceeds 34 megagrams per year, the permittee shall:

- a. Submit a LFG collection and control system design plan as per 40 CFR 60.762(b)(2); or
- b. Within one year of the emission rate report required by Condition 15, demonstrate using a site-specific methane generation constant (Tier 3), that NMOC emissions do not equal or exceed 34 megagrams per year, submit a revised NMOC emission rate report and resume annual NMOC emission rate reporting.

(9VAC5-80-110, 40 CFR 60.752 (b)(2), 40 CFR 60.757 (c), 40 CFR 60.762 (b)(2), 40 CFR 60.767 (c)(4)(ii) and Condition 21 of 12/19/2016 Permit)

**18. Reporting (LF-01)** - If the NMOC mass emission rate as calculated using the Tier 2 site-specific NMOC concentration and Tier 3 site-specific methane generation rate is equal to or greater than 34 megagrams per year, the permittee shall:

- a. Submit a gas collection and control system design plan within 1 year of the first NMOC emissions rate report in which the NMOC emission rate equals or exceeds 34 megagrams per year as specified in 40 CFR 60.767(c) and install and operate a gas collection and control system within 30 months of such report according to 40 CFR 60.762(b)(2)(ii) and (iii); or
- b. Conduct a surface emission monitoring demonstration using the Tier 4 procedures as specified in Condition 13.

(9VAC5-80-110 and 40 CFR 60.764 (a)(4)(i))

**19. Reporting (LF-01)** – If the permittee elects to conduct Tier 4 monitoring, the Tier 4 reports shall be submitted according to the requirements of 40 CFR 60.767(c)(4)(iii).

(9VAC5-80-110 and 40 CFR 60.767(c)(4)(iii))

20. **Reporting (LF-01)** – If, within the last 10 years, the permittee has employed a leachate recirculation system or used added liquids based on a Research, Development, and Demonstration permit, reports shall be submitted according to the requirements of 40 CFR 60.767 (k).

(9 VAC 5-80-110 and 40 CFR 60.767 (k))

21. **Reporting (LF-01)** – The permittee shall submit a closure report to the DEQ within 30 days of the date the MSW landfill stopped accepting waste.

(9VAC5-80-110, 40 CFR 60.757 (e), 40 CFR 60.767 (e) and Condition 24 of 12/19/2016 Permit)

22. **Reporting (LF-01)** – The permittee shall provide a notification of the date(s) upon which it intends to demonstrate site-specific surface methane emissions are below 500 parts per million methane, based on the Tier 4 provisions of 40 CFR 60.764(a)(6). The permittee must also include a description of the wind barrier to be used during the surface emissions monitoring in the notification. Notification must be postmarked not less than 30 days prior to such date.

(9VAC5-80-110 and 40 CFR 60.767(l)(1))

23. **Reporting (LF-01)** - The LFG collection and control system design plan required by Condition 16 or Condition 17 shall be submitted to the DEQ:

- a. within one year after submitting the initial NMOC emission rate report required in Condition 15, reporting an NMOC emission rate which equals or exceeds 34 megagrams per year; or
- b. within one year of the first measured exceedance of 500 ppm methane.

(9VAC5-80-110, 40 CFR 60.752(b)(2)(i), 40 CFR 60.762(b)(2)(i) and Condition 22 of 12/19/2016 Permit)

24. **Reporting (LF-01)** – If, using a site-specific NMOC concentration, the NMOC emission rate is less than 34 megagrams per year, the permittee shall continue to submit periodic NMOC emission rate reports as provided in Condition 15, recalculate the NMOC mass emission rate annually as required by Condition 7, and retest the site-specific NMOC concentration every 5 years using the methods specified in Condition 10.

(9 VAC 5-80-110, 40 CFR 60.754(a)(3) and 40 CFR 60.764(a)(3))

**Fuel Burning Equipment – Flare (Emission Unit F-01)**

25. **Limitations (F-01)** – The utility flare shall be constructed so as to allow for emissions testing upon reasonable notice at any time, using appropriate methods. Sampling ports, safe sampling platforms, and access at the appropriate locations shall be provided when requested. (9VAC5-80-110 and 9 VAC 5-50-30 F)
26. **Limitations (F-01)** – The approved fuel for the utility flare is landfill gas (LFG). Propane gas may be used as fuel to ignite the pilot flame. A change in the fuel may require a permit to modify and operate. (9VAC5-80-110 and Condition 6 of 12/19/2016 Permit)
27. **Limitations (F-01)** – The utility flare shall consume no more than 716 million cubic feet of LFG per year, calculated monthly as the sum of each consecutive 12 month period. (9VAC5-80-110 and Condition 7 of 12/19/2016 Permit)
28. **Limitations (F-01)** - Emissions from the utility flare shall be controlled by proper operation and maintenance. The operators shall be trained in the proper operation of the utility flare. Training shall consist of a review and familiarization of the manufacturer's operating instructions, at minimum. The permittee shall maintain records of the required training including a statement of time, place and nature of training provided. The permittee shall have available good written operating procedures and a maintenance schedule for the utility flare. These procedures shall be based on the manufacturer's recommendations, at minimum. All records required by this condition shall be kept on site and made available for inspection by the DEQ. (9VAC5-80-110 and Condition 8 of 12/19/2016 Permit)
29. **Limitations (F-01)** - Emissions from the operation of the utility flare shall not exceed the limits specified below:

|                                       |             |              |
|---------------------------------------|-------------|--------------|
| Particulate Matter                    | 0.8 lbs/hr  | 3.3 tons/yr  |
| PM-10                                 | 0.8 lbs/hr  | 3.3 tons/yr  |
| Sulfur Dioxide                        | 3.5 lbs/hr  | 15.4 tons/yr |
| Nitrogen Oxides (as NO <sub>2</sub> ) | 3.0 lbs/hr  | 13.3 tons/yr |
| Carbon Monoxide                       | 16.6 lbs/hr | 72.8 tons/yr |

Annual emissions shall be calculated monthly as the sum of each consecutive 12-month period. These emissions are derived from the estimated overall emission contribution from operating limits. Exceedance of the operating limits may be considered credible evidence of the exceedance of emission limits. Compliance with these emission limits may be determined as stated in Conditions 26, 27, and 28.

(9VAC5-80-110 and Condition 10 of 12/19/2016 Permit)

30. **Limitations (F-01)** - The utility flare shall be designed for and operated with no visible emissions, except for periods not to exceed a total of five minutes during any two consecutive hours. At no time shall visible emissions from the flare exceed 30% opacity. (9VAC5-50-80, 9VAC5-80-110 and Condition 11 of 12/19/2016 Permit)

31. **Recordkeeping (F-01)** – The permittee shall maintain records of all emissions data and operating parameters necessary to demonstrate compliance with this permit. The content of and format of such records shall be arranged with the DEQ. These records shall include:

- a. Monthly and annual throughput of LFG (in cubic feet) to the utility flare. Annual throughput shall be calculated monthly as the sum of each consecutive 12-month period.
- b. Scheduled and unscheduled maintenance, and operator training.
- c. The results of all visible emission evaluations.

These records shall be available for inspection by the DEQ and shall be current for the most recent five years. Off-site records may be maintained if they are retrievable within four hours. Either paper copy or electronic formats are acceptable.

(9VAC5-80-110 and Condition 18 of 12/19/2016 Permit)

32. **Testing (F-01)** – Upon request by the DEQ, the permittee shall conduct additional visible emissions evaluations from the utility flare to demonstrate compliance with the visible emission limit contained in this permit. The details of the test shall be arranged with the DEQ.

(9VAC5-80-110 and Condition 17 of 12/19/2016 Permit)

33. **Testing (F-01)** – If testing is conducted in addition to the monitoring specified in this permit, the permittee shall use the appropriate method(s) in accordance with procedures approved by the DEQ.

(9VAC5-80-110)

## Permit Shield & Inapplicable Requirements

34. Compliance with the provisions of this permit shall be deemed compliance with all applicable requirements in effect as of the permit issuance date as identified in this permit. This permit shield covers only those applicable requirements covered by terms and conditions in this permit and the following requirements which have been specifically identified as being not applicable to this permitted facility:

| Citation                        | Name of Regulation  | Reason for Inapplicability  |
|---------------------------------|---|---|
| 9 VAC 5 Chapter 40 Article 43   | Emissions Standards for Municipal Solid Waste (MSW) Landfills (Rule 4-43)   | Applies to MSW landfills constructed, reconstructed or modified before May 30, 1991. RCL was modified (expanded) in 2007 and 2016, so it is not subject to Rule 4-43. |
| 9 VAC 5 Chapter 40 Article 43.1 | Emission Standards for Municipal Solid Waste Landfills for which Construction, Reconstruction, or Modification was Commenced On or Before July 17, 2014 (Rule 4-43.1) | RCL's most recent expansion was in 2016; since the landfill modified on or after July 17, 2014, it is not subject to Rule 4-43.1.                                     |
| 40 CFR 63, Subpart AAAA         | National Emission Standards for Hazardous Air Pollutants (NESHAP) for Municipal Solid Waste Landfills   | RCL's NMOC maximum emission rate using Tier 2 procedures is 8.4 Mg/yr, which is < 50 Mg/yr applicability threshold in 40 CFR 63.1935(a).                              |
| 40 CFR 64                       | Compliance Assurance Monitoring   | For the reasons explained under the Monitoring sections for the landfill and flare above, RCL does not meet the applicability criteria in 40 CFR 64.2.                |
| 40 CFR 98                       | Greenhouse Gas (GHG) Reporting  | Requirements in the GHG Reporting Rule in 40 CFR Part 98 are currently not included in the definition of "applicable requirement" in 40 CFR 70.2 and 71.2.            |

Nothing in this permit shield shall alter the provisions of §303 of the federal Clean Air Act, including the authority of the administrator under that section, the liability of the owner for any violation of applicable requirements prior to or at the time of permit issuance, or the ability to obtain information by (i) the administrator pursuant to §114 of the federal Clean Air Act, (ii) the Board pursuant to §10.1-1314 or §10.1-1315 of the Virginia Air Pollution Control Law or (iii) the Department pursuant to §10.1-1307.3 of the Virginia Air Pollution Control Law.  
(9VAC5-80-140)



## **General Conditions**

**35. Federal Enforceability** – All terms and conditions in this permit are enforceable by the administrator and citizens under the federal Clean Air Act, except those that have been designated as only state-enforceable.

(9 VAC 5-80-110)

## **36. Permit Expiration**

- a. This permit has a fixed term of five years. The expiration date shall be the date five years from the date of issuance. Unless the owner submits a timely and complete application for renewal to the Department consistent with the requirements of 9 VAC 5-80-80, the right of the facility to operate shall be terminated upon permit expiration.
- b. The owner shall submit an application for renewal at least six months but no earlier than eighteen months prior to the date of permit expiration.
- c. If an applicant submits a timely and complete application for an initial permit or renewal under 9VAC5-80-80 F, the failure of the source to have a permit or the operation of the source without a permit shall not be a violation of Article 1, Part II of 9VAC5 Chapter 80, until the Board takes final action on the application under 9VAC5-80-150.
- d. No source shall operate after the time that it is required to submit a timely and complete application under subsections C and D of 9VAC5-80-80 for a renewal permit, except in compliance with a permit issued under Article 1, Part II of 9VAC5 Chapter 80.
- e. If an applicant submits a timely and complete application under section 9VAC5-80-80 for a permit renewal but the Board fails to issue or deny the renewal permit before the end of the term of the previous permit, (i) the previous permit shall not expire until the renewal permit has been issued or denied and (ii) all the terms and conditions of the previous permit, including any permit shield granted pursuant to 9VAC5-80-140, shall remain in effect from the date the application is determined to be complete until the renewal permit is issued or denied.
- f. The protection under subsections F 1 and F 5 (ii) of section 9VAC5-80-80 F shall cease to apply if, subsequent to the completeness determination made pursuant to section 9VAC5-80-80 D, the applicant fails to submit by the deadline specified in writing by the Board any additional information identified as being needed to process the application.

(9VAC5-80-80, 9VAC5-80-110 and 9VAC5-80-170)

37. **Recordkeeping and Reporting** – All records of monitoring information maintained to demonstrate compliance with the terms and conditions of this permit shall contain, where applicable, the following:

- a. The date, place as defined in the permit, and time of sampling or measurements.
- b. The date(s) analyses were performed.
- c. The company or entity that performed the analyses.
- d. The analytical techniques or methods used.
- e. The results of such analyses.
- f. The operating conditions existing at the time of sampling or measurement.

(9VAC5-80-110)

38. **Recordkeeping and Reporting** – Records of all monitoring data and support information shall be retained for at least five years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by the permit.

(9VAC5-80-110)

39. **Recordkeeping and Reporting** – The permittee shall submit the results of monitoring contained in any applicable requirement to DEQ no later than **March 1** and **September 1** of each calendar year. This report must be signed by a responsible official, consistent with 9VAC5-80-430 G, and shall include:

- a. The time period included in the report. The time periods to be addressed are January 1 to June 30 and July 1 to December 31.
- b. All deviations from permit requirements. For purposes of this permit, deviations include, but are not limited to:
  - (1) Exceedance of emissions limitations or operational restrictions;
  - (2) Excursions from control device operating parameter requirements, as documented by continuous emission monitoring, periodic monitoring, or compliance assurance monitoring which indicates an exceedance of emission limitations or operational restrictions; or,
  - (3) Failure to meet monitoring, recordkeeping, or reporting requirements contained in this permit.

- c. If there were no deviations from permit conditions during the time period, the permittee shall include a statement in the report that “no deviations from permit requirements occurred during this semi-annual reporting period.”

(9VAC5-80-110)

40. **Annual Compliance Certification** – Exclusive of any reporting required to assure compliance with the terms and conditions of this permit or as part of a schedule of compliance contained in this permit, the permittee shall submit to EPA and DEQ no later than **March 1** each calendar year a certification of compliance with all terms and conditions of this permit including emission limitation standards or work practices for the period ending December 31. The compliance certification shall comply with such additional requirements that may be specified pursuant to §114(a)(3) and §504(b) of the federal Clean Air Act. The permittee shall maintain a copy of the certification for five (5) years after submittal of the certification. This certification shall be signed by a responsible official, consistent with 9VAC5-80-430 G, and shall include:

- a. The time period included in the certification. The time period to be addressed is January 1 to December 31.
- b. The identification of each term or condition of the permit that is the basis of the certification.
- c. The compliance status.
- d. Whether compliance was continuous or intermittent, and if not continuous, documentation of each incident of non-compliance.
- e. Consistent with subsection 9 VAC 5-80-490 E, the method or methods used for determining the compliance status of the source at the time of certification and over the reporting period.
- f. Such other facts as the permit may require to determine the compliance status of the source.
- g. One copy of the annual compliance certification shall be submitted to EPA in electronic format only. The certification document should be sent to the following electronic mailing address:

[R3\\_APD\\_Permits@epa.gov](mailto:R3_APD_Permits@epa.gov)

(9VAC5-80-110)

41. **Permit Deviation Reporting** – The permittee shall notify the Valley Regional Office within four daytime business hours after discovery of any deviations from permit requirements which may cause excess emissions for more than one hour, including those attributable to upset conditions as may be defined in this permit. In addition, within 14 days of the

discovery, the permittee shall provide a written statement explaining the problem, any corrective actions or preventative measures taken, and the estimated duration of the permit deviation. The occurrence should also be reported in the next semi-annual compliance monitoring report pursuant to Condition 39 of this permit.

(9VAC5-80-110 F.2)

42. **Failure/Malfunction Reporting** – In the event that any affected facility or related air pollution control equipment fails or malfunctions in such a manner that may cause excess emissions for more than one hour, the owner shall no later than four daytime business hours after the malfunction is discovered, notify the Valley Regional Office of such failure or malfunction and within 14 days provide a written statement giving all pertinent facts, including the estimated duration of the breakdown. When the condition causing the failure or malfunction has been corrected and the equipment is again in operation, the owner shall notify the Valley Regional Office.

(9VAC5-80-110 and 9VAC5-20-180)

43. **Failure/Malfunction Reporting** - The emission units that have continuous monitors subject to 9VAC5-40-50 C and 9VAC5-50-50 C are not subject to the 14 day written notification.

(9VAC5-20-180 and 9VAC5-50-50)

44. **Failure/Malfunction Reporting** - Each owner required to install a continuous monitoring system (CMS) or monitoring device subject to 9VAC5-40-41 or 9VAC5-50-410 shall submit a written report of excess emissions (as defined in the applicable subpart in 9VAC5-50-410) and either a monitoring systems performance report or a summary report form, or both, to the board semiannually. All semi-annual reports shall be postmarked by the 30th day following the end of each calendar semi-annual period (June 30th and January 30th). All reports shall include the following information:

- a. The magnitude of excess emissions computed in accordance with 40 CFR 60.13(h) or 9VAC5-40-41 B.6, any conversion factors used, and the date and time of commencement and completion of each period of excess emissions;
- b. Specific identification of each period of excess emissions that occurs during startups, shutdowns, and malfunctions of the source. The nature and cause of any malfunction (if known), the corrective action taken or preventative measures adopted;
- c. The date and time identifying each period during which the continuous monitoring system was inoperative except for zero and span checks and the nature of the system repairs or adjustments; and
- d. When no excess emissions have occurred or the continuous monitoring systems have not been inoperative, repaired or adjusted, such information shall be stated in the report.

All malfunctions of emission units not subject to 9VAC5-40-50 C or 9VAC5-50-50 C require written reports within 14 days of the discovery of the malfunction.

(9VAC5-80-110, 9VAC5-20-180 C, and 9VAC5-50-50)

45. **Severability** – The terms of this permit are severable. If any condition, requirement or portion of the permit is held invalid or inapplicable under any circumstance, such invalidity or inapplicability shall not affect or impair the remaining conditions, requirements, or portions of the permit.  
(9VAC5-80-110)
46. **Duty to Comply** – The permittee shall comply with all terms and conditions of this permit. Any permit noncompliance constitutes a violation of the federal Clean Air Act or the Virginia Air Pollution Control Law or both and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or, for denial of a permit renewal application.  
(9VAC5-80-110)
47. **Need to Halt or Reduce Activity not a Defense** – It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.  
(9VAC5-80-110)
48. **Permit Modification** – A physical change in, or change in the method of operation of, this stationary source may be subject to permitting under State Regulations 9VAC5-80-50, 9VAC5-80-1100, 9VAC5-80-1605, or 9VAC5-80-2000 and may require a permit modification and/or revisions except as may be authorized in any approved alternative operating scenarios.  
(9VAC5-80-110, 9VAC5-80-190 and 9VAC5-80-260)
49. **Property Rights** – The permit does not convey any property rights of any sort, or any exclusive privilege.  
(9VAC5-80-110)
50. **Duty to Submit Information** – The permittee shall furnish to the Board, within a reasonable time, any information that the Board may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the Board copies of records required to be kept by the permit and, for information claimed to be confidential, the permittee shall furnish such records to the Board along with a claim of confidentiality.  
(9VAC5-80-110)
51. **Duty to Submit Information** – Any document (including reports) required in a permit condition to be submitted to the Board shall contain a certification by a responsible official that meets the requirements of 9 VAC 5-80-80 G.  
(9VAC5-80-110)
52. **Duty to Pay Permit Fees** – The owner of any source for which a permit under 9VAC5-80-50 through 9VAC5-80-300 was issued shall pay permit fees consistent with the requirements of 9VAC5-80-310 through 9VAC5-80-350 in addition to an annual permit maintenance fee

consistent with the requirements of 9VAC5-80-2310 through 9VAC5-80-2350. The actual emissions covered by the permit program fees for the preceding year shall be calculated by the owner and submitted to the Department by **April 15** of each year. The calculations and final amount of emissions are subject to verification and final determination by DEQ. The amount of the annual permit maintenance fee shall be the largest applicable base permit maintenance fee amount from Table 8-11A in 9VAC5-80-2340, adjusted annually by the change in the Consumer Price Index.

(9VAC5-80-110, 9VAC5-80-340 and 9VAC5-80-2340)

**53. Fugitive Dust Emission Standards** – During the operation of a stationary source or any other building, structure, facility, or installation, no owner or other person shall cause or permit any materials or property to be handled, transported, stored, used, constructed, altered, repaired, or demolished without taking reasonable precautions to prevent particulate matter from becoming airborne. Such reasonable precautions may include, but are not limited to, the following:

- a. Use, where possible, of water or chemicals for control of dust in the demolition of existing buildings or structures, construction operations, the grading of roads, or the clearing of land;
- b. Application of asphalt, water, or suitable chemicals on dirt roads, materials stockpiles, and other surfaces which may create airborne dust; the paving of roadways and the maintaining of them in a clean condition;
- c. Installation and use of hoods, fans, and fabric filters to enclose and vent the handling of dusty material. Adequate containment methods shall be employed during sandblasting or other similar operations;
- d. Open equipment for conveying or transporting material likely to create objectionable air pollution when airborne shall be covered or treated in an equally effective manner at all times when in motion; and,
- e. The prompt removal of spilled or tracked dirt or other materials from paved streets and of dried sediments resulting from soil erosion.

(9VAC5-80-110 and 9VAC5-50-90)

**54. Startup, Shutdown, and Malfunction** – At all times, including periods of startup, shutdown, soot blowing, and malfunction, owners shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with air pollution control practices for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Board, which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.

(9VAC5-80-110 and 9VAC5-50-20)

**55. Alternative Operating Scenarios** – Contemporaneously with making a change between reasonably anticipated operating scenarios identified in this permit, the permittee shall record in a log at the permitted facility a record of the scenario under which it is operating. The permit shield described in 9VAC5-80-140 shall extend to all terms and conditions under each such operating scenario. The terms and conditions of each such alternative scenario shall meet all applicable requirements including the requirements of 9VAC5 Chapter 80, Article 1. (9VAC5-80-110)

**56. Inspection and Entry Requirements** – The permittee shall allow DEQ, upon presentation of credentials and other documents as may be required by law, to perform the following:

- a. Enter upon the premises where the source is located or emissions-related activity is conducted, or where records must be kept under the terms and conditions of the permit.
- b. Have access to and copy, at reasonable times, any records that must be kept under the terms and conditions of the permit.
- c. Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit.
- d. Sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the permit or applicable requirements.

(9VAC5-80-110)

**57. Reopening For Cause** – The permit shall be reopened by the Board if additional federal requirements become applicable to a major source with a remaining permit term of three years or more. Such reopening shall be completed no later than 18 months after promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is later than the date on which the permit is due to expire, unless the original permit or any of its terms and conditions has been extended pursuant to 9VAC5-80-80 F. The conditions for reopening a permit are as follows:

- a. The permit shall be reopened if the Board or the administrator determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit.
- b. The permit shall be reopened if the administrator or the Board determines that the permit must be revised or revoked to assure compliance with the applicable requirements.
- c. The permit shall not be reopened by the Board if additional applicable state requirements become applicable to a major source prior to the expiration date established under 9 VAC 5-80-110 D.

(9VAC5-80-110)

**58. Permit Availability** – Within five days after receipt of the issued permit, the permittee shall maintain the permit on the premises for which the permit has been issued and shall make the permit immediately available to DEQ upon request.

(9VAC5-80-110 and 9VAC5-80-150)

**59. Transfer of Permits**

- a. No person shall transfer a permit from one location to another, unless authorized under 9VAC5-80-130, or from one piece of equipment to another.
- b. In the case of a transfer of ownership of a stationary source, the new owner shall comply with any current permit issued to the previous owner. The new owner shall notify the Board of the change in ownership within 30 days of the transfer and shall comply with the requirements of 9VAC5-80-200.
- c. In the case of a name change of a stationary source, the owner shall comply with any current permit issued under the previous source name. The owner shall notify the Board of the change in source name within 30 days of the name change and shall comply with the requirements of 9VAC5-80-200.

(9VAC5-80-110 and 9VAC5-80-160)

**60. Permit Revocation or Termination for Cause** – A permit may be revoked or terminated prior to its expiration date if the owner knowingly makes material misstatements in the permit application or any amendments thereto or if the permittee violates, fails, neglects or refuses to comply with the terms or conditions of the permit, any applicable requirements, or the applicable provisions of 9VAC5 Chapter 80, Article 1. The Board may suspend, under such conditions and for such period of time as the Board may prescribe any permit for any grounds for revocation or termination or for any other violations of these regulations.

(9VAC5-80-110, 9VAC5-80-190 C and 9VAC5-80-260)

**61. Duty to Supplement or Correct Application** – Any applicant who fails to submit any relevant facts or who has submitted incorrect information in a permit application shall, upon becoming aware of such failure or incorrect submittal, promptly submit such supplementary facts or corrections. An applicant shall also provide additional information as necessary to address any requirements that become applicable to the source after the date a complete application was filed but prior to release of a draft permit.

(9VAC5-80-110 and 9VAC5-80-80 E)

**62. Stratospheric Ozone Protection** – If the permittee handles or emits one or more Class I or II substances subject to a standard promulgated under or established by Title VI (Stratospheric Ozone Protection) of the federal Clean Air Act, the permittee shall comply with all applicable sections of 40 CFR Part 82, Subparts A to F.

(9VAC5-80-110 and 40 CFR Part 82)



63. **Asbestos Requirements** – The permittee shall comply with the requirements of National Emissions Standards for Hazardous Air Pollutants (40 CFR 61) Subpart M, National Emission Standards for Asbestos as it applies to the following: Standards for Demolition and Renovation (40 CFR 61.145), Standards for Insulating Materials (40 CFR 61.148), and Standards for Waste Disposal (40 CFR 61.150).  
(9VAC5-60-70 and 9VAC5-80-110)
64. **Accidental Release Prevention** – If the permittee has more, or will have more than a threshold quantity of a regulated substance in a process, as determined by 40 CFR 68.115, the permittee shall comply with the requirements of 40 CFR Part 68.  
(9VAC5-80-110 and 40 CFR Part 68)
65. **Changes to Permits for Emissions Trading** – No permit revision shall be required under any federally approved economic incentives, marketable permits, emissions trading and other similar programs or processes for changes that are provided for in this permit.  
(9VAC5-80-110)
66. **Emissions Trading** – Where the trading of emissions increases and decreases within the permitted facility is to occur within the context of this permit and to the extent that the regulations provide for trading such increases and decreases without a case-by-case approval of each emissions trade:
- a. All terms and conditions required under 9VAC5-80-110, except subsection N, shall be included to determine compliance.
  - b. The permit shield described in 9VAC5-80-140 shall extend to all terms and conditions that allow such increases and decreases in emissions.
  - c. The owner shall meet all applicable requirements including the requirements of 9VAC5-80-50 through 9 VAC 5-80-300.
- (9VAC5-80-110)